

# Abstract of the Disclosure

There is provided a method and so on capable of controlling an external force applied to an animal in such a way as to achieve as a target relation the relation  
5 between the external force and a motion variable varying with the motion of the animal.

A value of an external force  $f$  applied to a human leg according to an external force function  $f(x)$ — on the basis of a measured value of a myoelectric potential  $x$   
10 that occurs in the human leg, current  $I$  of a motor 220 is controlled according to the set value, and the external force  $f$  is applied to the leg through an orthosis 222. A resultant force (the sum of an internal torque and an external torque around a knee joint)  $F$  is measured as "a  
15 motion variable." Moreover, a value of a factor  $\gamma$  is set according to a factor function  $\gamma(f, F)$  on the basis of the set value of the external force  $f$  and the measured value of the resultant force  $F$ . If a deviation  $\delta$  between the set value of the factor  $\gamma$  and target value  $\gamma_t$  thereof is equal  
20 to or greater than a reference value  $\varepsilon$ , a new external force function  $f(x)$  is set in such a way that the set value of the factor  $\gamma$  approaches the target value  $\gamma_t$ .